The Illinois Central Railroad.

ITS POSITION AND PROSPECTS.

ILLINOIS CENTRAL RAIL ROAD.

For the purpose of aiding the construction of "a Rail Road from the southern terminus of the Illinois and Michigan Canal to a point at or near the junction of the Ohio and Mississippi Rivers, with a Branch of the same to Chicago, on Lake Michigan, and another via the town of Galena to Dubuque, in the State of Iowa," the Congress of the United States, by an Act, approved September 20, 1850, granted to the State of Illinois,

1st. The right of way 200 feet wide, through the public lands, and of taking necessary materials of earth, stone, lumber, &c.

2d. Every alternate section of land, designated by even numbers for six sections in width on each side of said Road and Branches, or if any such have been sold, so much land most contiguous to such sections and not exceeding fifteen miles from the line of the road as shall be equal to those sold.

By an Act of the Legislature of the State of Illinois, passed the present year, Robert Schuyler, George Griswold, Gouveneur Morris, Franklin Haven, David A. Neal, Robert Rantoul, jun., Jonathan Sturgis, George W. Ludlow, John F. Sanford, Henry Grinnell, William H. Aspinwall, Leroy Wiley and Joseph W. Alsop, and such persons as shall hereafter become Stockholders, were created a body politic and corporate, under the name of the Illinois Central Rail Road Company, with all necessary powers and privileges for constructing and maintaining the Rail Road and Branches, contemplated in the Act of Congress aforesaid, and for this purpose, the right of way, and all the lands that may be selected along the line of said

Road and Branches in the State, under the grant in said Act, together with a right of way over and through lands belonging to the State, and all the rights and materials heretofore acquired by the State for the same object, are ceded and granted to said Corporation, on condition that such Road shall be built in four, and said Branches in six years, and that when built and in operation, seven per cent of the gross income shall be paid to the State in lieu of all taxes levied for State purposes. The lands thus granted are to be placed in the hands of Trustees, three-fourths for the security of any Bonds issued by the Company, and one-fourth to meet any deficiency from other sources, for the payment of interest, or contingencies. The Capital Stock is fixed by the Act, at one million of dollars, which may be increased at any time, to an amount not exceeding the entire expenditure on account of the Road.

The Illinois Central Rail Road Company has been organised, the Capital Stock subscribed, and twenty per cent. of it paid in, all the conditions of the Charter have been complied with, and all the deeds, grants and trusts executed. Engineers are employed in selecting a route and the donated lands, which will amount to 3840 acres for each mile of road, or in the aggregate, (the Road and Branches being assumed at 670 miles) 2,572,800 acres.

It is proposed to meet the cost of construction by the issue of Bonds, payable in 1875, bearing interest not exceeding seven per cent. The security for the principal will be—1st, the Road itself; and 2d, two million acres of the donated lands. The security for the interest will be 1st, the Capital Stock; 2d, the Income of the Road; 3d, two hundred and fifty thousand acres of the land specially appropriated.

The lands will be valued at prices that will more than cover any possible amount required for construction, but which, it is believed, will be fully realised before the period of the maturity of the Bonds. These Bonds may at any time, be surrendered and any land on sale claimed in lieu of them at the appraisement. None of the lands appro-

priated for their security, can be disposed of, except on the simultaneous surrender or payment of Bonds to an amount equal to their appraisal. That appraisal of the two millions of acres mortgaged for their security, that is, the price under which they will not be sold, and to which it is expected they will advance at some time previous to 1875, will be so arranged, as soon as they are selected and their character known, as to produce the following averages.

400,000 acres ordinary agricultural lands	$6,	$2,400,000
1,200,000 acres good agricultural lands	$10,	12,000,000
300,000 acres superior agricultural do.	$15,	4,500,000
100,000 acres town sites, mineral lands	$25,	2,500,000
2,000,000		$21,400,000

To enable the Company to meet the demand for these lands at any time, short of the period of the maturity of the Bonds, the right to anticipate their payment has been reserved, but only on condition of giving one hundred and twenty dollars for every hundred so taken up.

During the time occupied in the construction of the Road the interest on the outlay will be included in its cost. Immediately on its completion, the Income, after paying current expenses and State tax, will be of course applied to this object. If it should not, at first, be sufficient, the earnings from any partial use of the road, before its entire completion, the whole capital stock of the Company, and the entire proceeds of sales of 250,000 acres of land set aside for this purpose, will form a fund that will be ample under any contingency.

The basis of this enterprise is founded both on National and State legislation. The powers delegated are ample, the titles are perfect. It is of its merits as a public work, of its capabilities as a great thoroughfare, of its success as a commercial operation, and its consequent estimation as a medium of investment, that I now propose to make some remarks.

If to make two blades of grass grow where but one grew before, be worthy the high commendation of the philosopher and patriot, it will not be deemed an act altogether unimportant or useless to the country to open to the approach of industry, millions of acres of the most fertile soil the sun ever shone upon, and to make available at once, the alluvial deposites of countless ages. An enterprise that will thus bring into use, wealth heretofore buried, that will lighten the burthen, while it will increase the rewards of labor, that will add to the resources of the poor, and offer new and valuable investments to the rich, will hardly want friends, when such pretensions shall be established. The construction of a Rail Road traversing in its whole length the State of Illinois from Cairo, where the waters of the Mississippi and the Ohio meet, bearing on their surface the various productions of the North and the South, of the East and the West, to the vast mineral regions of Galena in the North West and to Chicago the emporium of the commerce of the great Lakes at the North East, will it is believed accomplish these objects. Its practicability, with the means at the disposal of its projectors and friends, is an important consideration. This, it is evident, must mainly depend on the ultimate value of the work when completed, and of the effect on the property which forms the basis of all its financial operations. The value of the work may be estimated by the use that can be made of it, or rather by the extent of production to which the ability to use it, will give birth. The sources of income will be found,

1st. In the produce of the mines and forests, for these furnish articles ready for use, and of general consumption every where.

2d. In the produce of the soil, which requires easy and cheap transportation to induce, as much as it does sunshine and rain, to perfect its cultivation.

3d. In the supplies requisite to those who may be engaged in occupations connected with or incident to the two above named branches of business.

4th. In the movements of the same persons for purposes of business or pleasure.

5th. In the transit of persons and goods between points beyond the limits of the State, for which the route will afford the most convenient and expeditious passage.

6th. In the transportation of mails and expresses, and in other miscellaneous operations.

Having settled these points with as much precision as the nature of the case admits, it will be easy to estimate the value of the Road as an investment, and consequently as a security *per se* for the means necessary to construct it. If it cannot be shown that it will yield some income beyond its current expenses, no one will probably take the trouble to carry on the enterprise, and consequently no means will be required for its construction. If therefore these means are sought, it will be proof that its projectors believe it will be of some intrinsic value. It may be more or less, or they may be altogether mistaken.

If the latter be not the case, then the property which they receive for carrying out the plan, must also be worth something. How much, will depend on the demand for it, and the demand will be proportionate to the number of persons who may be induced, by the prospect of success, to cluster about it. We come back then to the great question of *population.* In estimating what it may be some four or five or six years hence, in the region to be traversed by this or any other Road, we have the same lights to guide us that are always used by prudent men in their daily operations.

The merchant embarks in a well known traffic, with confidence, because he knows the number and wants of his customers. The manufacturer trusts, without question, the most valuable material in the hands of the operative, because he believes, that in its new form it will have acquired a new value from the fact that there are people whose comforts will be increased by its use. The farmer casts his seed into the ground, with little doubt of eventful re-payment, not only in the crops which must ensue, but

in his ability to exchange them for other things of which he has more need. So, if we offer a richer soil and greater facilities for disposing of its produce, than can be found elsewhere, we may fairly calculate on drawing to it a portion of the vast body of men that are always in motion, seeking rest, and competence and wealth, and just in proportion as are the inducements, will be the rapidity of its settlement and the value of the property. How rapid it will be, and how great the appreciation, we can judge when we know the whole case from analogy and experience. These are the true prophets. No man can be called speculative in the opprobrious sense of the term, that bases his operations on these as a foundation, and legitimately forms his opinions, and acts on them, from an accurate knowledge of facts and of their ordinary effects. In doing this however, we should weigh carefully all the conflicting circumstances, give no heed to the dictates of interest or the fascinations of a favorite theory. On the contrary we should always assume that there will be difficulties we have not discovered, and some points on which we have been deceived by false information or misled by specious pretensions.

In presenting the following views and estimates, I have not only endeavored to keep within these rules, but to make more than ample allowance for any possible contingency.

The geographical character of the State of Illinois has not been favorable to a rapid development of its resources. The Mississippi forms its entire western boundary, and the Ohio and Wabash its southern and eastern. It is intersected but by one navigable river, the Illinois. It has but one harbor on the Lakes, Chicago. A large portion of the State is without wood. A much larger portion of it is without roads, or the means of making them. Its streams are the only practicable routes for heavy transportation, and they are frozen in winter, and almost dry in summer.

Its financial position has not been, for several years

past, of such a character as to invite an increase of population. With a view to counteract the actual disadvantages mentioned, an extensive system of internal improvement was very early projected by the State Government, but the only results were unfinished works, enormous debts and heavy taxation.

Such, however, is the extraordinary richness of its soil, the ease with which it is cultivated, and the enormous returns it yields for the labor bestowed upon it, that the number of its inhabitants has been steadily progressive, and has now reached between 8 and 900,000, and 15 to the square mile. The adverse circumstances which have retarded its prosperity no longer operate to the same extent, and will soon disappear altogether. Her Canal is completed, her debt in process of liquidation, and her finances rapidly assuming a position that will no longer require the imposition of heavy taxes to sustain her credit and restore her reputation. But beyond anything else, the construction of Rail Roads will, in the course of four or five years do more for Illinois, than the discovery of its sierras of gold has done for California. The National Government has acted with a true regard to its own interests, in passing the act granting to the States of Illinois, Mississippi and Alabama, alternate sections of the public lands, twelve miles in width, whenever and wherever they would construct a Rail Road that should commence on the Gulf of Mexico, and terminate at the Lakes, and on the head waters of the Mississippi. The portion allotted to Illinois, in this work, extends from Cairo, at the junction of the Mississippi and Ohio rivers, to Chicago, on its north-eastern, and to Galena, on its north-western boundary.

The peculiar formation of this tract of country, makes it perhaps more than any other in the world, *the place* for the location of Rail Roads. Its topographical character is extremely favorable to their construction. On its vast prairies the levels are already formed. The embankments and ditches may be made by turning the sods from the sides to the centre. There are but few streams to cross,

no rocks to blast, no mountains to perforate, and no valuable estates through which to purchase at enormous rates, the right of way. The difficulties are all of an inferior grade. The want of material at hand for the purposes of masonry, construction of bridges, and ballasting the Road way, will be obviated by laying the track on the banks made from the side drains, and transporting on it the rock, wood and gravel required, and which, from the great distance between the points where they are found and where they are wanted, could be done in no other way. The very low cost of Rail Roads already completed in Illinois, fully sustain the fact of the great facilities which the nature of the country affords for their construction. It is probable they can be built at less cost here than in any other part of the globe. It is certain they will do comparatively more good. *Any where* they are better than rivers. *Every where* they increase wealth by facilitating the means of acquiring it. But here they open access to a country through which no river runs, and from which no river can now be reached. They develope resources that must otherwise have remained hidden from human sight, and beyond the grasp of human hands.

Aware of the importance of introducing this engine of prosperity into their State with the least possible delay, the Legislature of Illinois wisely decided to transfer the boon offered by the General Government, to any responsible party that would undertake the enterprise, reserving to itself a fair share of the profits to be derived from it, and tendering to it all the protection which the broad seal of the State, and the solemnity of a contract, capable of being enforced in the Supreme Court of the United States, could give. The original gift and its subsequent transfer will, we trust, prove to be in fact, a deed of beneficence, blessing those who gave, and those who received it.

The Association, to whom the grant has been made by the State of Illinois, have received all waters, land, materials, privileges, rights of way, gradings, embankments, surveys, property, profiles and papers, belonging to the State, and necessary for the purpose of constructing the

Road, free of cost and expense, subject to their control and for their use forever.

The Road to be built is restricted only to within seventeen miles each side of a straight line from the city of Cairo to the Southern terminus of the Illinois Canal, which line is nearly coincident with the third principal meridian, thence a branch by any convenient route to Galena. From a point in about the latitude of °39.30 North latitude, will diverge the branch to be built to Chicago. The Main Line to be completed in four years, the Branches in six. No taxes to be levied until the road is completed; then in lieu of all other taxes the Company are to pay seven per cent. of the gross earnings of the Road, as already stated. The donated lands consist of every alternate section designated by even numbers, for six sections in width on each side of the Road as it may be located, or if any of these have been sold, then an equal quantity may be taken from contiguous tiers of sections any where within fifteen miles of the line.

Under this grant, the Road will be located through the most fertile prairies, the most valuable forests, and the richest mineral lands in the State; but these have been neglected by settlers in consequence of the utter impossibility of getting their productions to market. Until the Illinois Central Rail Road Company shall have selected their lands, the Books of the General Land Office in Washington are closed against entries in this region, and when opened, the price is to be double that of the other lands. The Company are therefore fully protected. They have organized under their charter, all the deeds and necessary documents have been executed by the Governor of the State, the trustees, and its own officers. The whole stock has been taken and twenty per cent. been paid in, in cash, and the same deposited with the State Treasurer of Illinois, to be returned on completion of fifty miles of the Road. Robert Schuyler, Esq., of New York, a gentleman more conversant with and more largely interested in Rail Roads than any other person on the Western continent, has been chosen President, and Morris Ketchum, Esq., of

the very wealthy and well known house of Rogers, Ketchum & Bement, Treasurer of the Association. R. B. Mason, Esq., of the New York and New Haven Rail Road, has been appointed Chief, and he has engaged seven resident and a large corps of assistant Engineers, who have proceeded to Illinois to locate the Road and select the donated lands. The system devised for procuring the means of building this Road by the *sale* of Bonds, and for the *payment* of them *when* or *before* they become due, is unique in its character and provisions. It is believed to afford not simply entire security for the current interest and redemption at maturity, but a strong probability of a great advance in value, in consequence of the peculiar conditions annexed to the sale of the property which forms a branch of the collateral security embraced in the plan.

The length of the Road and Branches will probably not be less than 670 miles, which will entitle the Company, as before stated, to an aggregate donation of 2,572,800 acres. No estimate of its cost has been attempted, for no particular survey of the whole route has yet been made. It is said that $15,000 per mile is the highest that any Road (allowing for heavy T rail,) has as yet cost in Illinois;—$20,000 per mile would require about $14,000,000. It is intended to use the strictest economy, consistent with the construction of a good, substantial Road. It is also intended to pay for every thing with cash. There are various reasons besides for believing that this Road will be built for comparatively little money; but as ample security will be offered for any possible sum that may be required, it is unnecessary in this connection to go into any detail on that subject.

The Bonds will be dated April 1, 1851, with Coupons attached, at rate of interest to be hereafter agreed on, not exceeding seven per cent. It is desirable to negotiate at once (if practicable,) for enough to ensure the building the Road, but to be paid by instalments as wanted.

The first security for these Bonds that will be offered, will be the Road itself. To render this satisfactory, it must be shown, with a reasonable degree of certainty,

that it will pay its current expenses, taxes and interest on the capital invested. There will be within fifteen miles of the line of this Road, upwards of 12,000,000 acres of land. It is adapted to the cultivation of any kind of grain, but particularly of Indian corn, of which it is said it produces 60 a 70 bushels to the acre, and to be inexhaustible. There are at various points on the Road, large quantities of bituminous coal. There is one field of peculiarly good quality near Danville, about 120 miles from Chicago, from which all the shore towns and steamers of Lake Michigan may be supplied. Another, 50 miles from Cairo, which may supply the demands for steamboats, both on the Ohio and Mississippi. A large part of Illinois, especially that distant from the banks of the rivers, is destitute of forests. Chicago is the great depot for the lumber of both Michigan and Wisconsin, and it can always be obtained here in any quantities at low prices. Cairo is at the head of navigation for the large steamers of the Lower Mississippi, and the place of transhipment from them to the vessels of lighter draft, and vice versa, both of passengers and freight. Frequently the rivers above are impeded with ice, swollen from freshets or impassible for want of water. The Illinois Central Rail Road will furnish a rapid communication with and through the central, most fertile and most healthy portions of the State. Its means of transportation, will be ample, uninterrupted and safe. It will be completed probably in four years from the time of its active commencement.

One mode of increasing the population of the country will be the mass of laborers that must be introduced to build the Road. The amount paid to workmen alone, employed in grading, will not probably be less on an average, than $6000 per mile. Assuming the wages at $1 per day, and the road 666 2-3 miles long, we have 4,000,000 days work—or divided among four years, 1,000,000 per annum—and supposing 250 working days in the year, we require 4000 men to be constantly at work. With the prospect of so long a job, large numbers of these will have their families with them, and thus add at least 50 per cent to the

number. With them will naturally be brought those who look for profit in supplying them. An immediate market will be introduced for small farmers all along the line, who will clear their land in a single year from the disposal of their surplus produce. Three-fourths of the money expended in constructing the road, will remain in the country, or be remitted to Washington, in payment for Government lands. Settlers will thus have an unprecedented opportunity to make themselves not only owners of the soil, but establish themselves with comfort and independence for life. This will arrest the tide of immigration at this point. It will be known throughout Europe, as the spot where labor is in demand, wages good, pay prompt, living cheap, and farms paid for from the profits of a single crop. By these means this strip of thirty miles in width, or parcel of 20,000 square miles of country, will soon become spotted with an industrious population.

But these will not be the only means, nor agriculture the only inducement for drawing settlers to this region. Where the ground produces so exuberantly, the greater part of its productions must find a foreign market. The corn grown by the Irish immigrant, now raised to the dignity of landed proprietor, will go to feed his relatives and friends in the old country. The hemp rotted in the waters of the Illinois and Kaskaskias, already almost the only kind used in the Eastern States, will meet and compete with, and put down the product of the Serf labor of Russia, in the London Market. The beef, pork and lard of the Prairie, will not only feed all the inhabitants between the Mississippi and the Atlantic coast, but will crowd, more than ever, the docks and rise in higher piles on the quays of Liverpool. The immense flocks, for which this portion of the country is already becoming celebrated, will supply the mills that are found on every stream in New England, at a cheaper rate, and with a better article, than that for which they have till latterly sent and still do to some extent send their ships to gather in the extreme corners of the earth. The returns for these substantial items of food and raiment must consist of all the variety of com-

forts and luxuries which the hard-working laborer requires and which the prosperous farmer will have. This interchange of commodities must employ many heads and many hands. It will cause the establishment of stores, villages, towns and cities. These will be connected by earth roads and plank roads and rail roads. Churches and schools will spring up in every direction. It will be the reverse of the country of the poet, "where wealth accumulates and men decay." Men grow happier and better where wealth increases from their own exertions, where industry is sure to give them competence, and enterprise will secure abundance.

But for our present purpose, these pictures, which are too true to nature in our Western country to be considered any thing more speculative than is the plan of the architect, who has his materials ready purchased and his contracts ready drawn, these may be entirely dispensed with, we may if we can, crowd ourselves down to the idea that this region, now about to be emancipated from its native wildness, will crawl along so that at the end of four or five years it will have attained a population no greater than the present average of the whole State. Even then there will be dependent on this road for their supplies and for the sale of their produce, at least 300,000 persons, each one of whom will be located somewhere within eighteen miles of a Station on the Illinois Central Rail Road.

Under the circumstances and with the advantages that have been thus alluded to, can there be a doubt that the Road will be sustained and pay, even the first year it may be put in operation, a liberal income on its cost? It is hard to conceive a state of things in which such must not be the case. As this, however, is an important matter, it may be as well to descend to particulars, and in doing so, I will assume there is to be no progress, no incentive, no enterprise; that no spirit is to be awakened, no impulse given by the outlay of millions of money, and no advantage taken of the millions of acres of the richest soil in the world, located in the absolute centre of the United States, which will be thrown before the thousands that are daily

flocking to these shores for the very purpose of gaining a foothold and freehold in our country. The calculations will be based simply on what would *now* be the business of the Road, if it were completed, supposing it to have the advantage of only the present average density of population in the State and conceding to its industry but the least probable amount of productiveness.

The first source of income to this Road, it has been already stated, would be found in the produce of the mines and forests, in other words in the transportation of coal and lumber. Coal of a bituminous character is found in many places in Illinois. Two fields of very superior quality will be found intersected by this Road or its Chicago Branch, one about 50 miles from Cairo, the other 120 miles from Chicago. It is not probable that any considerable quantities will be exported from Cairo, because the coal from the Ohio, being contiguous to its banks, can be delivered on shipboard for less money. It will, however, be wanted by every steamboat that touches at that place, and the convenience and facility with which it may be furnished from the Road, will ensure that custom. In 1850, it is stated that 1500 arrivals of steam boats were chronicled at Cairo. These boats require from 5 to 30 tons of coal or an equivalent in other fuel every day they are under steam. I am not well advised on this subject, but suppose a supply to each boat on an average, of three days or fifty tons would be considered small. This, however, would require an import of 75,000 tons per annum, for this sole object. How much would be carried north for the supply of the inhabitants is still more problematical. From the mines near Danville, Chicago and all the towns on Lake Michigan would draw their supplies of coal to more advantage than from any other source. So also could all the steamers navigating that Lake. It will surely be safe to estimate all this at 75,000 tons more. The average transportation will be over 75 miles, and the lowest rate would be $1 1-2 per ton, which would amount to $225,000. The interior counties of the State have no timber, while those to which the coal will be carried can

supply lumber and wood to any amount. The southern portion of Illinois has fine forests. At Dubuque or its vicinity are saw mills which are amply supplied from Minesota. Chicago is well known as the great lumber depot of the lakes, taking most of its supply from the adjoining State of Wisconsin. The Rock Valley Rail Road terminating here, passes through vast forests of white pine. Now in the prairie lands of Illinois, through which the Central Rail Road will be carried for a large part of its whole distance, every article for building, fencing and fuel must be drawn from one or the other of the above sources. The cars therefore carrying coal, as well as those carrying produce to Chicago, will find employment on their return trips, in the transportation of timber. The gross income from the use of them cannot be set down at less than $300,000.

The second source indicated, from which the Road is to be sustained, is "the produce of the soil." The transportation of Indian corn and other grains will be the important business of this Road. Their production will in time be limited by the capacity of the Road to carry it off. In an estimate of this sort then, it may be safe to neglect all other kinds of produce, or rather consider them as merged into the one article of maize or Indian corn. We have already restricted ourselves to a population in the district of country lying within fifteen miles of the Rail Road, to the density of the whole State by the census of 1850, or fifteen to the square mile. There will be, as before stated, 20,000 of such miles, and the number of inhabitants will be of course 300,000. A large portion of these will be male adults, but taking the usual calculation of five to a family, we have 60,000 families. Deducting again one sixth for other employments, we have then 50,000 families presumed to be engaged in the cultivation of the soil. Now it cannot be doubted, I think, that ten families can easily till and take care of 1000 acres of Indian corn in Illinois, by an interchange of labor. It is as certain that the land will give 50, 60 and 70 bushels to the acre. This gives an average of 100 acres of cultivated ground, and 6000 bushels of corn to

each family. But to be sure not to overtask the powers of the people or of the soil, we reduce both one half, 50 acres and 30 bushels per acre, giving to each family 1500 bushels. Of this, suppose one third to be used in the family and on the farm and wasted. There remains 1000 bushels. As a portion of this may be represented by less bulky and more valuable articles, we again reduce it one third to get at the weight that will require transportation to a market. This leaves us 666 1-3 bushels of corn, or an equivalent in other things, and which multiplied by the number of families gives equal to 33,333,000 bushels of Indian corn. The usual mode is to estimate 33 bushels to the ton. At 33 1-3 it gives 1,000,000 tons. The average distance which it would have to be transported to a market could not be less than 100 miles, and the price would be low at five cents per ton per mile. This would give $4,000,000.

3d. The returns that will be made to the producers of this large amount of property must bear some proportion to it in value and in bulk. If the corn nets but 15 cents per bushel, it will give to each family $100, and to the 50,000 families $5,000,000. To keep within bounds, we will suppose that exclusive of the lumber by the coal and other trains, only one-eighth of the outward tonnage is returned in supplies. This would give the Road, at the enhanced rate which such goods would bear, (say 5 cents per ton per mile) or $5 per ton, $625,000.

4th. The local travel of this same population will be an item of some importance. They must be considerably scattered, and if they associate at all, they will use the Road. Each head of a family will have his own produce to dispose of, and that will require his presence at the market towns. Now, if each family averages five journeys of 60 miles each, or 300 miles per annum for the whole household, it will cause the road to carry one passenger 18,000,000 miles, which at 3 cents per mile is five hundred and forty thousand dollars. This would amount to nine dollars for each family per annum. If we reduce it one half, there can be little doubt of the other half being made

highest rate of compensation allowed by law. Placing it however in the second class, the amount would be at least $67,000 per annum. If we add for expenses, parcels, and miscellaneous, $31,000, we close our estimate of probable Income, making the total amount as follows:—

150,000	tons	coal	carried	75	miles	each	Gross Income $225,000
150,000	"	lumber	"	100	"	"	" " 300,000
1,000,000	"	produce	"	100	"	"	" " 4,000,000
125,000	"	Merchandise	back	"	"	"	" " 625,000
60,000	passengers	(local)		300	"	"	" " 540,000
26,000	"	(through)		400	"	"	" " 312,000
20,000	tons through freight			400	miles	each.	" " 200,000
							6,202,000
	Mails, &c.,	-	-	-	-		98,000
							$6,300,000

To transport the above, 258,000,000 tons of merchandise or individual passengers must have been carried one mile, estimating each ton of merchandise outward as two, but not estimating anything for the return freight, and putting the expenses at one cent per ton, or per passenger carried one mile, the cost is $2,580,000
and leaving a Net Income of 3,720,000
less 7 per ct. of Gross income 440,000—leaves 3,280,000
or an interest of 7 per cent on nearly $47,000,000. It is, however, an amount of business that could not be performed on a single track, and with the depot accommodation such as we presume the Company will have prepared at the outset. The statement however, seems to show that there will be as much business as can be well managed when the Road is first opened. It may therefore be proper to show what can be conveniently done with a single track, and what equipment will be required to do it.

It may be set down as an axiom in Rail Road management, that it should be prepared to do every day and any day double its annual average. Thus, if the whole tonnage of the 313 working days in the year be 313,000 tons or an average of 1000 tons per day, the Road should be prepared always to take 2000 tons, because it may at any time be called on to do so. But to do this, it is evident it

must have an equipment sufficient, not simply to carry this amount, but also sufficient to allow for cars and engines detained, as they may be from several causes. If not thus provided it cannot adapt itself to all the variations of trade.

I suppose the Company could conveniently enough operate the Road as follows—daily and each way:

1.	One freight train from Dubuque to the point of deviation (in 39 deg. 30 m.) of the Chicago Branch, - -	260 miles.
2.	One passenger train, do. - - -	260 "
3.	One freight train, half way between Junction and Dubuque, say - - - - -	130 "
4.	Two freight trains from Junction to Cairo, say	174 "
5.	Five freight trains from Junction to Chicago, -	226 "
6.	One coal train from mines to Cairo, - -	54 "
7.	One " " Danville to Chicago, - -	120 "
8.	One passenger train, Cairo to Chicago, accomodation,	400 "
9.	One " " express,	400 "

These trains will require, for actual use, the following equipment, and will run the distances annexed:

				Miles per Annum.
1.	60 Double freight cars and	4	locomotives, making	188,760
2.	20 Pass'r cars, 60 seats each,	4	" "	188,760
3.	60 Double freight cars, and	2	" "	81,380
4.	120 " " "	4	" "	217,840
5.	240 " " "	16	" "	565,904
6.	160 Single coal cars "	2	" "	33,804
7.	160 " " "	2	" "	75,120
8.	20 Passenger cars, 60 seats,	8	" "	250,400
9.	20 " "	8	" "	250,400
		50		1,852,368

To the locomotives we may add for contingencies,	50	pr ct.
Passenger cars " "	50	"
Freight cars and coal cars " "	100	"
And to the distance run, say		147,632
Giving 75 engines, 90 passenger, 960 freight and 640 coal cars, and distance - - - -		2,000,000

With this power and arrangement it would be easy to transport each way, if the business was uniform, for a distance of 200 miles daily, 2400 tons of merchandise; but conforming to the rule, already laid down, of being prepared to do double the average, it will be fair to put the

up and much more than made up by the other local passenger and freight business, such as of those living without the line of twelve miles, of citizens of other States visiting the stations, and the thousand occasions for trips from the terminii to the interior. It seems safe, then, to let this item stand.

5th. The through travel, which will consist of all passengers passing over the Road or any part of it on their way to and from other States. There is a great tide of travel from the South and West, that has heretofore ebbed and flowed regularly Northerly and Easterly in early Spring, and Southerly and Westerly in Autumn, impelled by business or pleasure, or both. Various channels to accommodate this mighty current have been, or will be provided. The principal of these are

1. The Southern line of rail roads, steam boats and stages through Virginia, the Carolinas, Georgia and Alabama:

2. The Baltimore and Ohio Rail Road intended to be constructed to Wheeling on the Ohio River:

3. The Pennsylvania Rail Road and the Ohio Central from Philadelphia to Pittsburg, thence by one line to Lake Erie, and by another through Columbus, and eventually to Vincennes and St. Louis:

4. The Erie Rail Road to Dunkirk, thence by the Lake Shore Roads to Toledo, thence by Southern Michigan to Chicago:

5. The Hudson River Road, connecting with all the Albany and Buffalo Roads terminating at Buffalo, or Niagara Falls, thence by the Great Western Rail Road through Canada West to Detroit, thence by the Michigan Central to a junction with the Illinois Central at or near Chicago. At Buffalo also, passengers for the West take steam boats for Detroit or direct for Chicago.

Now all these routes, except the two first, though to a degree competing among themselves, will disgorge their South-western freight and passengers upon the Illinois Central, which will in turn benefit them by affording the quickest and best line from the Atlantic to New Orleans.

When the Mobile and Ohio, the Illinois Central, the Great Western and the Hudson River Rail Roads shall be completed, the distances and time of passenger trains will be:

New York to Albany,	144	miles,	5	hours,
Albany to Niagara,	300	"	11	"
Niagara to Detroit,	229	"	10	"
Detroit to Michigan city,	227	"	10	"
Michigan city to Cairo,	400	"	16	"
Cairo to Mobile,	500	"	20	"
	1800		72	

all by Rail Road and without change of baggage from the crates. If this can be approximated, and there is no reason why it should not be reached, no route between the East and the West either by sea or land, can successfully compete with it. But supposing all this is imagination and assuming all the present difficulties of this route to continue, snags in the rivers, explosions of the boilers, break down of the machinery, cholera in the vessel and quarantines on shore, we shall find few who will estimate the present travel over the roads and streams for which the Illinois Central route will be the substitute, at less than 250 weekly each way, averaged through the year on each and every part of them. But suppose this number only pass over 400 miles of the Road, they will travel 10,400,000 miles, which at 3 cents per mile will give $312,000. In this same class of business must be included the transportation of merchandise from points beyond the terminii of the Road. As the route will be the shortest, safest and quickest between the West and the East, it will be likely to secure almost all the valuable goods imported or manufactured by the Atlantic States for the supply of the great Valley of the Mississippi, but in return little except specie can be expected. Putting the amount at 20,000 tons both ways, and the rate at $10 per ton, gives us $200,000.

6th. *Transportation of the Mail.* As this will be the most expeditious route, the least exposed to delay and danger, and will connect with all the important lines of Rail Roads and Steamboats, it should be entitled to the

ported by the magnificent domains already granted in every section for their use, with all the appliances of modern science brought to bear upon its own extraordinary powers of production, with one great trunk Rail Road traversing its whole extent from north to south, and connecting the sources of the Mississippi with the waters of the Gulf of Mexico, with rail roads and plank roads intersecting it in every direction, giving it all needful facilities, with a location within 48 hours of New York or New Orleans, with vast fields made ready by nature for the plough or the harrow, with valuable forests, and with inexhaustible beds of lead and coal; under all these advantages can there be much doubt of finding purchasers at prices *in fee*, that in many of the States less populous than this will be in ten years, would hardly pay the rental for a single year.

The object of this memoir is to provoke criticism—to bring forward objections, if there be any, to the course adopted by the Corporation, to elicit the truth by discussion, to detect errors of fact and errors of imagination, in a word to arrive at a point in the investigation of the subject about which there can, under no circumstances, be any doubt, and to show a basis for investment that cannot fail in the essential elements of security of capital and prompt and regular receipt of interest.

The writer subscribes his name, not because it is of any importance who presents facts that are of general notoriety, or draws deductions from them which all can judge of, but because he does not wish to give his representations any effect by concealing his interest in the undertaking, or to let it be surmised that his statements or calculations have any official sanction. They have not been submitted to the Board of Directors or to any of the officers of the Company. From them a more elaborate report of the location and character of the Road, of the circumstances of its position, of the probable extent of its traffic, of its future increase, of the value of its property, and of the validity of its securities, may soon be expected. It is the

humble, but perhaps not useless design of these pages to awaken so much curiosity in relation to this subject as will ensure to that Report the attention to which its importance will justly entitle it, and to foreshadow the features of a plan that offers a mode of investment as ample in its guaranties as the securities of government, without their liability to fluctuations with the changing aspects of the times.

D. A. NEAL.

capacity at 1200 tons, 100 miles outward, and 300 tons inward. The coal trains could take 400 tons, and those to Chicago bring back 400 tons of lumber or heavy goods. Reduce these also to one half, and assuming the outward freight in produce at 4 cents per ton per mile, inward at 5 cents, and coal and lumber at 2 cents, and passengers at 3 cents per mile, we shall arrive at the following results:

1200	tons	outward freight	312 1-2	days	is	375,000	tons at	$4 - -	$1,500,000
300	"	inward "	"	"		93,750	" "	$5 - -	468,750
200	"	coal to Cairo,	313	"		62,600	" "	$1 - -	62,600
200	"	coal to Chicago	"	"		62,600	" "	$2 - -	125,200
200	"	lumber from Chicago	313½	"		62,600	" "	$2 - -	125,200
61	"	through freight	313	"		20,000	" "	$10 - -	200,000
26,000		through passengers	400	miles	each	10,400,000	miles at	3 cents -	312,000
60,000		local "	300	"	"	18,000,000	" "	3 " -	540,000
		Mail $100 per mile - - - - - - - - - - -							66,000
		Expresses, Parcels, and Miscellaneous - - - - - -							38,250
									$3,438,000
		State Tax 7 per cent., say - - - - - - - - - -							238,000
									$3,200,000

COST OF OPERATING.

73,280,000 tons carried one mile, at 1 1-4 cts per ton, per mile	$916,000	
28,400,000 passengers carried one mile at 1 ct per mile -	284,000	1,200,000
being 60 cents per mile run by trains.	Net Income -	$2,000,000

being 7 per cent., on between twenty-eight and twenty-nine millions of dollars. It is evident that we may deduct one-third from the gross income, and still have enough to ensure the interest on the cost of the Road. In fact, it seems difficult, without throwing away all the results of experience and rejecting the plainest deductions from the action of well known causes, to make an estimate of the business that will not produce an income, that *per se*, will appear extravagantly large on the capital invested. Yet if it had been my object to discourage investments in the stock or bonds of such an enterprise, and had claimed that it could expect no more business than was indicated in the preceding statement, without showing its proceeds, I am sure I should have been accused of a ridiculous depreciation of its probable amount. There seems, indeed, very little doubt, that instead of one, before many years pass by, a double track will be required the whole length of the line, and perhaps four tracks between the coal pits and

the terminii of the Road. My intention, however, is not to show how profitable the Road may prove as a speculation, but to prove that it will be good security for the sum expended in its construction. If it be so, then it is evident that to the bond holder, who wants security and nothing else, it is not of much consequence what the mortgaged lands may be worth, but to those who seek profit it may be, for if these lands should not be wanted at the prices fixed by the Directors, they will not be sold, and consequently the Bonds will not be taken by the Company at 20 per cent. advance at which they have retained the right to redeem them. But if there be not some gross fallacy pervading all our previous calculations, if the usual motive that governs men in making their investments, to wit, the proportion that the income will bear to the principal, does not cease to operate, if the increase of native, and the influx of foreign population does not stop, if experience and analogy do not deceive us, and if all who have looked closely into the subject are not grossly mistaken, these lands will bring every dollar at which the Directors of the Company have appraised, or in all probability, will wish them to be sold.

The prices that have been affixed to these lands may appear large, especially when it is known that there is an equal quantity equally valuable that can and will be entered, as soon as the location of the Road is known, at the Government minimum rate of $2 1-2 per acre. But it must be recollected that it is not of the prices of to-day that we speak; that it is not an unapproachable wilderness, devoid of culture and destitute of inhabitants, that we value. It is not a country on the outskirts of civilization, untrodden save by the wild animals of the prairie, or the wilder Indian of the forest. But it is Illinois in 1860 or 1870, that we are to appreciate. It is a region dotted with flourishing farms and covered with an enterprising and industrious population, that we offer for sale. It is the exact centre of the American Union, sustained by clusters of sister States all around, with its schools sup-

Mess Brown & Ives

Providence

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